Appl. No. 10/539,534 Amdt. dated March 27, 2008 Reply to Office Action of February 28, 2008

## Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

## Listing of Claims:

- (Original) A gene targeting vector for introducing an exogenous gene into the ZO-1 gene region in a non-human animal, wherein the vector comprises the exogenous gene and an entire or partial region of the ZO-1 gene.
- (Original) The vector of claim 1, comprising a structure in which the
  entire or partial region of the ZO-1 gene is placed upstream and/or downstream of the exogenous
  gene.
- (Original) The vector of claim 2, wherein the partial region of the ZO-1 gene comprises exon II or a portion thereof.
- (Original) The vector of claim 3, comprising a structure in which either
  one of the DNA fragments in (a) and (b) below is placed at each side of the exogenous gene:
  - (a) a 1.5 kb Bsp1286I-Bsp1286I fragment comprising a partial exon II of the ZO-1 gene and its upstream, and an 8.5 kb PstI-BamHI fragment located downstream of exon II:
  - (b) a 5.1 kb Pstl-BsrDI fragment comprising a partial exon II of the ZO-1 gene and its upstream, and a 3.9 kb Pstl-SphI fragment located downstream of exon II.
  - 5-6. (Cancelled)
- (Currently Amended) The vector of claim 1-or-5, wherein the vector is
  used for generating a non-human animal expressing an exogenous gene or a non-human animal
  cell expressing an exogenous gene.

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- (Currently Amended) The vector of claim 1-or-5, wherein the vector comprises in the upstream of an exogenous gene a promoter capable of transcribing the exogenous gene.
- (Currently Amended) The vector of claim 1-or-5, wherein the vector further comprises a marker gene expression cassette.
- (Original) The vector of claim 9, wherein the vector comprises a structure in which an exogenous gene is placed adjacent to the downstream of a marker gene expression cassette.
- (Currently Amended) The vector of claim 1-or 5, wherein the exogenous gene is a marker gene expression cassette.
- (Previously Presented) The vector of claim 9, wherein the marker gene expression cassette is a drug resistance gene expression cassette.
- (Original) The vector of claim 12, wherein the drug resistance gene expression cassette is a DNA fragment comprising β-geo.
- 14. (Currently Amended) The vector of claim 1-or 5, wherein the non-human animal is a mouse.

## 15-22. (Cancelled)

- (Previously Presented) The vector of claim 11, wherein the marker gene expression cassette is a drug resistance gene expression cassette.
- (Previously) The vector of claim 23, wherein the drug resistance gene expression cassette is a DNA fragment comprising β-geo.